

(Following Paper ID and Roll No. to be filled in your Answer Book)

PAPER ID : 1113

Roll No.

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**B. Tech.**

**(Semester-I) Theory Examination, 2012-13**

**ENERGY, ENVIRONMENT AND ECOLOGY**

*Time : 3 Hours]*

*[Total Marks : 80*

*Note:* Attempt questions from all Sections as per instructions.

**Section-A**

Attempt *all* parts of this question.

2×8=16

1.
  - (a) What are the components of the earth or environmental segments ?
  - (b) Comment on human concern on environment.
  - (c) What are the impacts of in-situ and ex-situ conservation of biodiversity ?
  - (d) Trace the factors leading to deforestation.
  - (e) Classify the energy resources.

- (f) What is the composition of Biogas ?
- (g) What are the symptoms of water pollution in any water body ?
- (h) List the effects of air pollution on public health.

### Section-B

2. Attempt any *three* parts of this question.  $8 \times 3 = 24$

- (a) Explain the following :
  - (i) Ecosystem and its components
  - (ii) Functions of Ecosystem.
- (b) What is sustainability and sustainable development ? What are its components ? How can it be ensured ?
- (c) Depletion of power production is the major problem faced in our country. Provide reasons for this problem and also give your innovative ideas on alternate source of energy for electricity production.
- (d) How the water gets polluted ? Explain each pollutant with example.
- (e) Explain in detail the various acts relating to air, water and environment protection.

### Section-C

Attempt *all* questions of this Section.

8×5=40

3. Attempt any two parts :

4×2=8

- (a) Prove why conservation of forest is important to mankind.
- (b) Compare Natural and man-made extinctions with examples.
- (c) Why sustainable agriculture is needed ?

4. Attempt any one part :

8×1=8

- (a) Elaborate environment and its importance by showing few time examples ?
- (b) Natural cycles play an important role in our environment. Explain any two of them.

5. Attempt any one part :

8×1=8

- (a) What are the products of combustion of coal and petroleum ? Discuss their damaging effect on environment.
- (b) Give critical notes on the following :
  - (i) Tidal wave energy
  - (ii) Geothermal energy.

6. Attempt any one part : 8×1=8

- (a) What is meant by "Water Shed" ? Explain with reasons the importance of watershed management in our national policy.
- (b) "Day by day our atmosphere gets prone to serious effects." Prove this statement.

7. Attempt any two parts : 4×2=8

- (a) Discuss the Bhopal gas tragedy
- (b) What are the various water borne diseases ?
- (c) Illustrate the activities of NGOs on environmental protection.